## STATE OF WISCONSIN DEPARTMENT OF EMPLOYEE TRUST FUNDS

801 West Badger Road Madison, WI 53702

### CORRESPONDENCE MEMORANDUM

**DATE**: April 18, 2002

**TO**: Deferred Compensation Board

**FROM**: Mary Willett, Director

Supplemental Retirement Plans

**SUBJECT**: Barclays Global Investors – Contract Amendment Recommendation

At their March meeting, the Investment Committee reviewed an amendment to the contract with Barclays Global Investors (BGI) for management of three commingled index funds in the Wisconsin Deferred Compensation Program's (WDC) investment spectrum. The purpose of the amendment is to state that BGI will waive certain costs that would normally be assessed against the assets in each fund, to improve the performance of these options as compared to their corresponding index. After review of the proposal and discussions with representatives from BGI, staff and the Investment Committee are recommending that the Board approve the proposed amendment (Attachment 1).

### Background

In February 2001, three passively managed investment options, managed by BGI, were added to the WDC's investment spectrum. These options are commingled funds that are managed to correspond to a specific index as noted below.

- US Debt Index Fund correlates to Lehman Brothers Aggregate Bond Index
- S&P MidCap Stock Fund correlates to S&P 400 Index
- EAFE Equity Index Fund correlates to the MSCI EAFE Index

The commingled funds were selected because of their low cost compared to similar retail mutual fund options. BGI offered these options to the WDC with very low internal investment management fees because of the relationship that they have with the State of Wisconsin Investment Board (SWIB). As a result of the attractive pricing, these options were expected to provide a better investment opportunity to WDC participants and more closely match the corresponding index than retail mutual funds.

### Tracking Error Situation

In December 2001, it was identified that there was a significant tracking error (difference between fund performance and the corresponding index) for the three BGI funds. BGI initially determined that this was a result of auditing fees that were being assessed against the assets in each fund. Although the auditing fees were relatively small (approximately \$2,000 per fund), because of the size of the three funds (on 12/31/01 ranged from \$500,000 to \$4.9 million) it

made a significant impact on the funds' performance and how well it tracked, or corresponded to the index.

After discussion with BGI representatives, they agreed to absorb the auditing costs and re-credit the funds with the fees that were assessed in 2001. In addition, they agreed to amend the contract to state that the fees would continue to be waived for each fund through December 31, 2003 or until the WDC assets in the fund total \$5 million.

Although the reversal of the charges improved performance of the three index funds, they continued to experience a tracking error that was greater than our expectations when we selected these options. BGI continued to examine this issue and determined the following also affected the funds' performance:

- Rounding error the fund values were being reported to the plan administrator in twodecimal places, which added to the tracking error. Going forward, the values will be carried out to six decimal places.
- <u>Structure of funds</u> BGI re-engineered the structure of the three index funds to hold direct units of the larger master funds, instead of units of a shadow or sub-accounts of the master funds. This is expected to result in a closer correlation to the master fund and the corresponding index.

A letter from BGI, dated March 14, 2002 is attached to explain the above two situations (Attachment 2). Jim Keagy, Principal from BGI will be present at the May Board meeting to provide additional explanation, if needed, or to answer questions from Board members.

### Summary and Recommendation

The proposed changes to the three BGI funds appear to be sufficient to correct the tracking error that has occurred. BGI representatives have been very cooperative in reaching a solution that will provide WDC participants with the investment opportunity that was expected when the Board first contracted for these options. They also have been providing a monthly report to staff to allow us to closely monitor the fund performance and to confirm that the instituted changes continue to improve the tracking.

Staff and the Investment Committee members recommend the Board approve the proposed contract amendment with BGI. This amendment will require that BGI waive the expenses associated with administering these accounts until December 31, 2003 or until the WDC assets in the particular fund total \$5 million. If the Board approves this approach, staff will closely monitor the performance of these funds. As part of next year's annual report (presented in May 2003), a separate analysis will be prepared to identify if the expenses that would be reinstated in 2004 (or sooner, when a fund reaches \$5 million) would result in a reoccurrence of the tracking error. This analysis would then be the basis to determine if the WDC should reconsider the use of retail mutual funds, instead of the commingled fund approach, for providing passively managed, index options in the WDC investment spectrum.

#### **ATTACHMENT 1**

Principal
Client Relationship Officer

Telephone 415 597 2022 Facsimile 415 908 7134 jim.keagy@barclaysglobal.com

February 28, 2002

BARCLAYS GLOBAL INVESTORS

Ms. Mary Willett, CRA, CRC
Director - Supplemental Retirement Plans/Office of Federal Compliance
State of Wisconsin Department of Employee Trust Funds
801 West Badger Road
Madison, WI 53702

Re: EAFE Index Fund "W", US Debt Index Fund "W", and MidCap Index Fund "W"

Dear Mary:

Thank you for your letter of February 19, 2002 detailing your concerns about the above-referenced funds. We will make every effort to resolve this matter swiftly, and we apologize that this has not been accomplished to date.

As a result of your letter, we have re-drafted the contract amendment. This amendment memorializes our agreement to waive expenses as we discussed on December 4, 2001. If it meets your approval, kindly have it executed and return one copy to Holly Lemerond.

Your understanding that we agreed to proceed with "option three" as outlined on December 4<sup>th</sup> is correct. Specifically, BGI has agreed to waive all third-party charges through December 31, 2003, or until the funds reach \$5 million in assets, whichever occurs first. We confirmed that BGI did in fact reimburse each fund in December for the third-party expenses charged in 2001, and these charges will be absorbed by BGI for the next two years as we agreed.

Reversing these charges resulted in an improvement in tracking, but this step did not reduce the issue as much as we had hoped in two of your three funds. Some degree of tracking error can be expected in the ordinary course of fund operations, especially in international funds. Nevertheless, we are looking into ways to restructure your accounts to improve tracking going forward.

Over the past week, we have had a series of meetings to examine this issue in detail. The portfolio managers identified the following sources of tracking error that may occur in daily-valued funds: (1) rounding error; (2) "gap" risk inherent with post-notified funds; and, (3) management fees, transactions and futures costs.

The rounding error problem can be lessened by carrying out the funds' unit values to six decimal places instead of two. We have spoken with Rick Janel at NDC and are awaiting his confirmation that NDC's record-keeping system can accommodate six decimal unit values.

Barclays Global Investors 45 Fremont Street San Francisco, CA 94105 Post: P.O. Box 7101 San Francisco, CA 94120-1701 Ms. Mary Willett, CRA, CRC February 27, 2002 Page 2 of 2

The "gap risk" occurs when BGI trades based on participant activity at the market open while giving participants the prior night's unit value. The levels at which the participant activity is traded may be above or below where the market closed the prior night. Of course, it is possible that this can result in positive tracking (or alpha) as well as negative tracking error.

Transactions costs represent the cost of trading contributions and withdrawals on the open market. In addition to the direct cost of holding futures contracts, tracking error can result from the difference between the futures trading price and the index closing price, which again can be either positive or negative. Management fees will always be a drag on tracking in net of fee funds. I would be glad to arrange a conference call with the portfolio managers to discuss tracking in further detail.

The tracking issues in your three "W" funds stem in part from the small size of the funds at this time. Tracking is usually tighter in larger funds because costs are spread over larger investment pools. For example, BGI's Midcap "E", US Debt "E" and EAFE "E" index funds have experienced excellent tracking over the years, as shown on the attached exhibits, and this is the type of performance we want to deliver to Wisconsin.

We are working on a new solution that will give your participants "E" Fund performance, and I hope to share the details with you as soon as we have cleared some final operational hurdles. Holly and I will be in Madison the week of March 18, although we expect to have a proposal for you well before that time.

We appreciate your patience and look forward to remedying this matter shortly.

Sincerely,

Enclosures: MidCap, US Debt and EAFE "E" Fund Performance

### State of Wisconsin Public Employees Deferred Compensation Plan

First Amendment to Investment Management Agreement

This First Amendment to the Investment Management Agreement (the "Amendment") is made as of March\_\_, 2002 by and among Barclays Global Investors, N.A. ("Manager"), Wisconsin Deferred Compensation Board acting by and through the State of Wisconsin ("Employer"), sponsor of the State of Wisconsin Public Employees Deferred Compensation Plan ("Plan"), the Employer has established the Wisconsin Plan and Trust to hold assets of the Plan and has appointed the Wisconsin Deferred Compensation Board ("Trustee"). The Trustee has selected National Deferred Compensation, Inc. ("NDC") as administrator of the Plan. Capitalized terms used herein and not defined shall be given their meanings as so defined in the Agreement (as defined below).

WHEREAS, the Manager, Employer and NDC are party to an Investment Management Agreement dated as of January 25, 2001, as amended (the "Agreement"); and

WHEREAS, the Manager, Employer and NDC wish to amend certain terms and conditions of the Agreement.

NOW, THEREFORE, the Manager, Employer and NDC agree as follows:

- Amendments to the Agreement. BGI will waive audit and third-party charges in the MidCap Equity Index Fund "W", US Debt Index Fund "W", and EAFE Equity Index Fund "W" for three years beginning January 1, 2001 or until the size of each fund reaches \$5 million in assets individually, whichever occurs first. BGI will not charge the abovementioned fees before May 14, 2002 regardless of the fund asset size.
- 2. <u>Full Force and Effect.</u> Except as expressly set forth above, all other terms and provisions of the Agreement and Amendment shall remain in full force and effect.
- 3. Representations and Warranties. The Trustee represents and warrants that the representations and warranties contained in clause 7 of the Agreement are still true and correct in all material aspects.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereto duly authorized as of the day and year first above written.

Proprietary and Confidential

National Deferred Compensation, Inc.		
Ву		
Name	Title	
Wisconsin Deferred Compensation Board		
Ву		
Name	Title	
Barclays Global Investors, N.A.		
Ву		
Name	Title	,
Ву		
Name	Title	

### ATTACHMENT 2

James S. Keagy Principal Client Relationship Officer

March 14, 2002

RECEIVED RESEIVED OYE TRUST FUNDS

Telephone 415 597 2022 Facsimile 415 908 7134 jim.keagy@barclaysglobal.com

PERFORMANCE THROUGH INNOVATION
BARCLAYS GLOBAL INVESTORS

Ms. Mary Willett, CRA, CRC Wisconsin Department of Employee Trust Funds 801 West Badger Road Madison, WI 53702

Re: EAFE Index, US Debt Index, and MidCap Index "W" Funds

Dear Mary:

Following up on our conversations, this letter describes two important steps we are taking to improve the tracking of your three funds referenced above. We fully expect that these changes will result in the performance you are seeking for your participants, while keeping your fees well below those of mutual funds.

First, we will be reporting unit values to six decimal places instead of two, and we have confirmed with Rick Genel at NRS that their record-keeping system can accommodate this change. Rounding to two decimal places was one source of mis-tracking.

Second, we have re-engineered BGI's internal fund structure to enable us to better deliver to Wisconsin the strong performance of our larger institutional funds. You may recall that BGI has a master/feeder fund structure whereby master funds hold securities, and feeder (or shadow) funds hold units of the master fund. This structure allows us to accommodate different fee and notification arrangements for clients, such as the special fees of the W Funds.

In the case of your EAFE W Fund, it will now directly hold units of BGI's EAFE "A" Fund and a liquidity pool to accommodate purchases and redemptions. In the cases of your US Debt and MidCap Funds, they will hold units of BGI's respective "E" Funds. I have attached the historical performance of the three master funds, all of which are long-standing BGI strategies with a large institutional client base. While the performance of the W Funds will not be precisely the same as their respective A and E Funds, they are good comparables.

These steps are in addition to the expense waiver we put in place in December covering 2001 through 2003, by which time we expect the funds to be large enough that those routine charges will have a negligible impact on performance.

This restructuring at BGI will not require any special communications, changes to unit values or reporting. Going forward with these changes in place, we estimate *potential* mistracking to be in the range of 10 to 20 bps in your EAFE fund, 12 to 15 bps in your US Debt fund, and 12 to 15 bps in your MidCap fund, all net of fees. In other words, these estimates take into consideration the W Fund management fees (10 bps for EAFE, 5 bps for US Debt and 4 bps for MidCap).

PERFORMANCE THROUGH INNOVATION
BARCLAYS GLOBAL INVESTORS

Ms. Mary Willett, CRA, CRC March 14, 2002 Page 2

We appreciate that no level of mis-tracking is desirable. However, management fees, the cost of liquidity for daily-opened funds, and transactions costs for participants coming in and out of the funds will always be detrimental to tracking. On the positive side, securities lending returns and, for international funds, tax reclaims help offset these factors.

It is important to note that the negative tracking experienced to date has not been caused by security mis-weights or "outside of the benchmark bets", such as investing in emerging markets for a developed markets (EAFE) mandate. After conducting an attribution analysis, our portfolio managers confirmed the following sources of mis-tracking: (1) rounding; (2) "gap" risk inherent with post-notified funds; and, (3) fees, transactions and futures costs.

The "gap risk" occurs when the manager trades based on participant activity at the market open while giving participants the prior night's unit value. The levels at which the activity is traded may be above or below where the market closed the prior night, so the fund incurs the gain or loss. Managers who do not allow post-notified trading, such as by requiring participants to mail in their purchase or redemption requests, do not face this issue but they are not providing the same level of convenience to participants.

Transactions costs represent the cost of trading contributions and withdrawals on the open market. Futures contracts are used to provide market exposure for cash positions. In addition to the direct cost of holding futures contracts, mis-tracking can result from the difference between the futures trading price and the index closing price, which again can be either positive or negative.

For international funds, additional sources of mis-tracking are the wider time gap between trade date and order date (i.e., the post-notified effect) and the lack of futures that directly match the underlying index (e.g., the need to use FTSE UK futures to match the MSCI UK benchmark).

We will review the contents of this letter on the March 27<sup>th</sup> conference call with your investment committee at 2:30 PM CST. I will have portfolio managers available to discuss performance and answer any questions from your committee.

We are committed to delivering the best index performance in the industry without exposing your participants to non-benchmark securities risks. We appreciate your patience and support.

Sincerely,

PERFORMANCE THROUGH INNOVATION

BARCLAYS GLOBAL INVESTORS

# **EAFE Equity Index Fund A**

	MSCI EAFE Fund	MSCI EAFE-Free Index <sup>2</sup>	Tracking Difference <sup>3</sup>
1004	67.64%	67.42%	0.22%
19861	27.41	27.40	0.01
1987	28.36	28.25	0.11
1988	10.52	10.36	0.16
1989	-23.20	-23.59	0.39
1990	12.57	12.19	0.38
1991	-11.72	-12.22	0,50
1992	-11.72 32.82	32.68	0.14
1993		7.75	0.35
1994	8.10	11.27	0,32
1995	11.59	6.14	0,30
1996	6.44	1.55	0.20
1997	1.75		0.31
1998	20.40	20.09	0.33
1999	27.05	26.72	0.33 0.26
2000	-13.91	-14.17	
2001	-21.18	-21.44	0.26
1 Yr <sup>4</sup>	-18.74	-18.98	0.24
3 Yrs Annualized	-5.41	-5.75	0.34
5 Yrs Annualized	0.56	0.26	0.30
10 Yrs Annualized	4.87	4.56	0.31
2002			
Jan	-5.31 %	-5.31 %	0.00 %
ran Feb	0.69	0.70	-0 .01
M ar		*	
lst Qtr.			
Apr			
M ay			
Jun	•		
2nd Qtr.			
Jul			
Aug			
Sep			
3rd Qtr.			
Oct			
Nov			
Dec			
D-00		the state of the s	
4th Qtr.			
-			
	-4.65%	-4,65%	0.00%
YTD 2002	-4.03/6		
		201 128/	15.96%
Cumulative Since Inception	297.08%	281.12%	13.70 / 6
Annualized Since Inception	8.91%	8.63%	0.28%

The Performance Results Disclosures included herein are an integral part of this Performance Report

From time to time, third party index sponsors revise calculation of index returns. Please refer to the performance section of www.barclaysglobal.com for latest available index return information. Please refer to "16 Things You Should Know: Information About BGI" for further information about BGI funds. First year of full funding level. Fund inception: 7/31/81.
21986-1987, 9-country EAFE Index; Full EAFE-Free Index thereafter.

Source: Morgan Stanley Capital International
(shown for reference only; the MSCI EAFE Index includes stocks that cannot be purchased by U.S. investors.)
Note: EAFE Index returns are net of dividend withholding taxes as calculated by Morgan Stanley Capital International.

<sup>&</sup>lt;sup>4</sup>Performance figures are annualized as of period end.

## **US Debt Index Fund E**

	Lehman Brothers Aggregate					
	Fund		Index <sup>2</sup>		Difference	
1992¹	7.07%		7.40%		-0.30%	
1992	9.83		9.75		0.08	
1993	-3.03		-2.92		-0.11	
1995	18.58		18.47		0.08	
1996	3.72		3.63		0.11	
1997	9.59		9.65		-0.09	
1998	8.81		8.69		0.12	
1999	-0.88		-0.82		-0.05	
2000	11.70		11.63		0.05	
2001	8.61		8.44		0.16	
1 Yr <sup>3</sup>	7.78		7.67		0.11	
3 Yrs Annualized	7.36		7.29		0.07	
5 Yrs Annualized	7.76		7.69		0.07	
2002						
Ja n	0.79%		0.8 1%		-0.02 %	
Feb	0.98		0.9 7		0.01	
M ar						
1st Qtr.						
Ap r						
M ay						
Ju n						
			•			
2nd Qtr.						
Ju l						
Au g						
Sep						
3rd Qtr.						
sra Qir.				,		
Oc t						
No v						
De c						
4th Qtr.				•		•
YTD 2002	1.78%		1.79%		-0.01%	
Cumulative Since Inception	104.68%		104.62%		0.04%	
Annualized Since	7.31%		7.31%		0.00%	•
Inception					0.000/	

3.69%

The Performance Results Disclosures included herein are an integral part of this Performance Report
From time to time, third party index sponsors revise calculation of index returns. Please refer to the performance section of www.barclaysglobal.com for latest available index return information. Please refer to "16 Things You Should Know: Information About BGI" for further information about BGI funds. Fund Inception 01/03/92

**Annualized Risk** 

3.69%

0.28%

<sup>&</sup>lt;sup>2</sup>Source: Salomon Brothers prior to 12/31/89; Lehman Brothers 1/1/90 to date <sup>3</sup>Performance figures are annualized as of period end.

## Mid-Cap Equity Index Fund E

	Fund	S&P 400 Index	Difference
	8.26%	8.19%	0.05%
1992 <sup>1</sup>	13.91	13.91	-0.02
1993	-3.60	-3.58	-0.04
1994	30.93	30.96	-0.06
1995	19.28	19.25	0.03
1996	32.30	32.19	0.08
1997	19.31	19.19	0.12
1998	14.92	14.72	0.19
1999	17.51	17.51	0.00
2000	-0.45	-0.60	0.14
2001 1 Yr <sup>2</sup>	2.81	2.71	0.09
	13.67	13.58	0.08
3 Yrs Annualized	15.47	15.37	0.09
5 Yrs Annualized	14.64	14.59	0.04
10 Yrs Annualized	14.04		
2002			
Jan	-0.57%	-0.52%	-0.05%
Fe b	0.12	0.12	0.00
Ma r			
via i			
1st Qtr.			
Apr			
Ma y			•
Jun			
2nd Qtr.			•
zna Qtr.			
Jul			
Aug			
Sep			
oc p			
3rd Qtr.			
Oc t		•	
Nov			
De c			
4th Qtr.			
	-0.45%	-0.40%	-0.05%
YTD 2002	-0.4370	-0.70 / 0	777777
Annualized Since	14.65%	14.59%	0.04%
Inception	1.1100 / 0		

The Performance Results Disclosures included herein are an integral part of this Performance Report
From time to time, third party index sponsors revise calculation of index returns. Please refer to the performance section of www.barclaysglobal.com for
latest available index return information. Please refer to "16 Things You Should Know: Information About BGI" for further information about BGI funds.

Fund Inception 02/29/92

<sup>2</sup>Performance figures are annualized as of period end.

Inception